

SEQUENCE LISTING

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<120> Vascular Endothelial Growth Factor-X

<130> 51935/004

<140> PCT/US99/30503
 <141> 1999-12-21

<150> GB 9828377.3
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<150> US 60/124,967
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<160> 97

<170> PatentIn Ver. 2.0

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 Arg Lys Ser Arg Val Val Asp Leu Asn Leu Leu Thr Glu Glu Val Arg
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 225 230 235 240
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 245 250 255
 Arg Cys Gly Gly Asn Cys Ala Cys Cys Leu His Asn Cys Asn Glu Cys
 260 265 270
 Gln Cys Val Pro Ser Lys Val Thr Lys Lys Tyr His Glu Val Leu Gln
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Glu Asp Pro Glu Asp Asp Ile Cys Lys Tyr Asp Phe Val Glu Val Glu
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 Glu Pro Ser Asp Gly Thr Ile Leu Gly Arg Trp Cys Gly Ser Gly Thr
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 Val Ser Asp Glu Tyr Phe Pro Ser Glu Pro Gly Phe Cys Ile His Tyr
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 Phe Ser Thr Leu Glu Asp Leu Ile Arg Tyr Leu Glu Pro Glu Arg Trp
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 Gln Leu Asp Leu Glu Asp Leu Tyr Arg Pro Thr Trp Gln Leu Leu Gly
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 Lys Ala Phe Val Phe Gly Arg Lys Ser Arg Val Val Asp Leu Asn Leu
 225 230 235 240
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 245 250 255
 Val Ser Ile Arg Glu Glu Leu Lys Arg Thr Asp Thr Ile Phe Trp Pro
 260 265 270
 Gly Cys Leu Leu Val Lys Arg Cys Gly Gly Asn Cys Ala Cys Cys Leu
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 Tyr His Glu Val Leu Gln Leu Arg Pro Lys Thr Gly Val Arg Gly Leu
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<220>
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<220>
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<220>
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<210> 8
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<212> DNA
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<220>
<223> Description of Artificial Sequence: primer

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<210> 9
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<220>
<223> Description of Artificial Sequence: primer

<400> 9
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<210> 10
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<220>
<223> Description of Artificial Sequence: primer

<400> 10
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<210> 11
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<210> 12
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<223> Description of Artificial Sequence: primer

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<210> 13
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<210> 14
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<210> 16
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<210> 18
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<400> 18
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<210> 20
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<210> 21
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 35 40 45

Leu Thr Phe Asp Glu Arg Phe Gly Leu Glu Asp Pro Glu Asp Asp Ile
 50 55 60

Cys Lys Tyr Asp Phe Val Glu Val Glu Glu Pro Ser Asp Gly Thr Ile
 65 70 75 80

Leu Gly Arg Trp Cys Gly Ser Gly Thr Val Pro Gly Lys Gln Ile Ser
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<211> 168

<212> PRT

<213> Homo sapiens

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 20 25 30

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 35 40 45

Val Ser Thr Asn Gly Ser Ile His Ser Pro Arg Phe Pro His Thr Tyr
 50 55 60

Pro Arg Asn Thr Val Leu Val Trp Arg Leu Val Ala Val Glu Glu Asn
 65 70 75 80

Val Trp Ile Gln Leu Thr Phe Asp Glu Arg Phe Gly Leu Glu Asp Pro
 85 90 95

Glu Asp Asp Ile Cys Lys Tyr Asp Phe Val Glu Val Glu Glu Pro Ser
 100 105 110

Asp Gly Thr Ile Leu Gly Arg Trp Cys Gly Ser Gly Thr Val Pro Gly
 115 120 125

Lys Gln Ile Ser Lys Gly Asn Gln Ile Arg Ile Arg Phe Val Ser Asp
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<212> DNA

<213> Homo sapiens

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 20 25 30
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 35 40 45
 Glu Leu Lys Arg Thr Asp Thr Ile Phe Trp Pro Gly Cys Leu Leu Val
 50 55 60
 Lys Arg Cys Gly Gly Asn Cys Ala Cys Cys Leu His Asn Cys Asn Glu
 65 70 75 80
 Cys Gln Cys Val Pro Ser Lys Val Thr Lys Lys Tyr His Glu Val Leu
 85 90 95
 Gln Leu Arg Pro Lys Thr Gly Val Arg Gly Leu His Lys Ser Leu Thr
 100 105 110
 Asp Val Ala Leu Glu His His Glu Glu Cys Asp Cys Val Cys Arg Gly
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 Ser Thr Gly Gly
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 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Human EST

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 agtggctgat tctattagag aacgtatgcg ttatctccat ccttaatctc agttgtttgc
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 ttcaaggacc ttcatcttc aggatttaca gtgcattctg aaagaggaga catcaaacag
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<210> 31

<211> 284

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Human EST

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 aaaggtcttc aatcgtggaa agaaaattaa atgttgattt aaatagatca ccagctagtt
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<210> 32

<211> 275

<212> DNA

<213> Artificial Sequence

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<210> 33

<211> 278

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Human EST

<400> 33

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ctttcatctt caggatttac agtgcattct gaaagaggag acatcaaaca gaattaggag
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<210> 34

<211> 275

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Human EST

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<210> 35

<211> 261

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Human EST

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<210> 36

<211> 279

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Human EST

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 180

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 ggaactgtgc ctgttgtctc ccacaattgc aatgaatgtc aatgtgtccc aagcaaagtt
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 actaaaaaat accacgaggt cc
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<210> 38
 <211> 289
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

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 gaaanaaaat taaatgttgt attaaataga tcaccagcta gtttcagagt taccatgtac
 180
 gtattccact agctgggttc tgtatttcag ttctttcgat acggcttagg gtaatgtcag
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 <212> DNA
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 cagagggagc acaggaggat agccgcaccc ccaccagcag ctcttgccca gagctgtgca
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ttgct
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<210> 40
<211> 247
<212> DNA
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<223> Description of Artificial Sequence: Human EST

<400> 40
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attctgaaag aggagacatc aaacagaatt aggagttgtg caacagctct tttgagagga
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cagaggaggt aagattatac agctgcacac ctcgtaactt ctcagtgtcc ataaggggaag
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aactaaagag aaccgatacc attttctggc caggttgtct cctgggttaa cgctgtgggtg
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ggaactgtgc ctgttgtctc cacaattgca atgaatgtca atgtgtccca ag
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<211> 253
<212> DNA
<213> Artificial Sequence

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<211> 265
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<210> 44
 <211> 291
 <212> DNA
 <213> Artificial Sequence

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<223> Description of Artificial Sequence: Human EST

<400> 44
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 naagangaga catcaaacag aattaggngt tgtgcaaaag ctcttttgag aggaggccta
 120
 aaggacagga gaaaagggtct ncaatcgtgg aaagnaaatt aaatgttgta tnaaatngat
 180
 caccagctag tttcagagtt accatgtacg tattccacta gctgggnong tattcagtct
 240
 ttcggaacgg cttagggttaa tgtcagtaca gganaaaaaac tgtgcagtga g
 291

<210> 45
 <211> 279
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 45
 attaaataga tcaccagcta gtttcagagt taccatgtac gtattccact agctgggttc
 60
 tgtatttcag ttctttcgat acggcttagg gtaatgtcag tacaggaaaa aaactgtgca
 120
 agtgagcacc tgattccgtt gccttggctt aactctaaag ctccatgtcc tgggcctaaa
 180
 atcgtataaa atctggattt tttntttttt ttttgcgcat attcacatat gtaaaccagn
 240
 acattctatg tacnacaaac ctgggttttta aaaaggaac
 279

<210> 46
 <211> 181
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 46

ggctagtttc agagttacca tgtacgtatt ccactagctg gggtctgtat ttcagttctt
60
tcgatacggc ttagggtaat gtcagtacag gaaaaaaact gtgcaagtga gcacctgatt
120
ccgttgccct gcttaactct aaagctccat gtcctgggcc taaaatcgta taaaatctgg
180
a
181

<210> 47

<211> 184

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 47

aatagatcac cagctagttt cagagttacc atgtacgtat tccactagct gggntctgta
60
tttcagttcc ttctgatacg gcttagggta atgtcagtac aggaaaaaag ctgtgcaagt
120
gagcacctga ttccgttgcc ttgcttaact ctaaagctcc atgtcctggg cctaaaatcg
180
tata
184

<210> 48

<211> 290

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 48

aaaggaacta tggtgctatg aattaaactt gtgtcgtgct gataggacag actggatttt
60
tcatatttct tattaaaatt tctgccattt agaagaagag aactacattc atggtttgga
120
agagataaac ctgaaaagaa gagtggcctt atcttcactt tatcgataag tcagtttatt
180
tgtttcattg tgtacatttt tatattctcc ttttgacatt ataactgttg gctttttctaa
240
tcttggttaa tatatctatt ttaccaaag gtatttaata ttctttttta
290

<210> 49

<211> 300

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 49

cacaaatcac tcaccgacgt ggccctggag caccatgagg ngtgtgactg tgtgtgcaga
60
gggagcacag gaggatagcc gcatcaccac cagcagctct tgcccagagc tgtgcagtgc
120
agtggctgat tctattagag aacgtatgcg ttatctccat ccttaatctc agttgtttgc
180
ttcaaggacc tttcatcttc aggatttaca gtgcattctg aaagaggaga catcaaacag
240
aattaggagt tgtgcaacag ctcttttgag aggaggctaa aggacaggag aanaggtctt
300

<210> 50
<211> 284
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 50
tgcagtgcag tggctgattc tattagagaa cgtatgcgtt atctccatcc ttaatctcag
60
ttgtttgctt caaggacctt tcattcttcag gatttacagt gcattctgaa agaggagaca
120
tcaaacagaa ttaggagttg tgcaacagct cttttgagag gaggcctaaa ggacaggaga
180
aaaggtcttc aatcgtggaa agaaaattaa atgttgtatt aaatagatca ccagctagtt
240
tcagagttac catgtacgta ttccactagc tgggttctgt attt
284

<210> 51
<211> 301
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 51
cttggttaa atctctatctt ttaccaaagg tatttaatat tctttantta tgacaactta
60
gatcaactat ttttagcttg gtaaatTTTT ctaaacacaa ttgttatagc cagaggaaca
120
aagatgatat aaaatattgt tgctctgaca aaaatacatg tatttcattc tcgtatggtg
180
ctagagttag attaatctgc attttaaaaa actgaattgg aatagaattg gtaagttgca
240
aagactTTTT ganaataatt aaattatcat atcttccatt cctgttattg ggggagaaaa
300
t
301

<210> 52
<211> 275
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 52

cacgaggtcc ttcagttgag accaaagacc ggtgtcaggg gattgcacaa atcactcacc
60
gacgtggccc tggagcacca tgaggagtgt gactgtgtgt gcagagggag cacaggggga
120
tagccgcac accaccagca gctcttgccc agagctgtgc agtgcagtgg ctgattctat
180
tagagaacgt atgcgttatc tccatcctta atctcagttg ttgcttcaa ggacctttca
240
tcttcaggat ttacagtgca ttctgaaaga ggaga
275

<210> 53
<211> 288
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 53
ttaaaaagga actatgttgc tatgaattaa acttgtgtca tgctgatagg acagactgga
60
tttttcatat ttcttattaa aatttctgcc atttagaaga agagaactac attcatgggt
120
tggaagagat aaacctgaaa agaagagtgg ccttatcttc actttatcga taagtcagtt
180
tatttgtttc attgtgtaca tttttatatt ctcttttga cattataact gttggctttc
240
taatctgtta aatatatcta tttttaccaa aggtatttaa tattcttt
288

<210> 54
<211> 278
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 54
ggaggatagc cgcacaccca ccagcagctc ttgccagag ctgtgcagtg cagtggctga
60
ttctattaga gaacgtatgc gttatctcca tccttaatct cagttgtttg cttcaaggac
120
ctttcatctt caggatttac agtgcattct gaaagaggag acatcaaaca gaattaggag
180
ttgtgcaaca gctcttttga gaggaggcct aaaggacagg agaaaaggtc ttcaatcgtg
240
gaaagaanat taaatgttgt attaaataga caccagct
278

<210> 55
<211> 275
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 55
ggaggatagc cgcacaccca ccagcagctc ttgccagag ctgtgcagtg cagtggctga
60

ttctattaga gaacgtatgc gttatctcca tccttaatct cagttgtttg cttcaaggac
 120
 ctttcatctt caggatttac atgcattctg aaagaggaga catcaaacag aattaggagt
 180
 tgtgcaacag ctcttttgag aggaggccta aaggacagga gaaaaggctt tcaatcgtgg
 240
 aaagaaaatt aaatgttgta ttaaatagat cacca
 275

<210> 56
 <211> 261
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 56
 gagaaccgat accattttct ggccagggtg tctcctggtt aaacgctgtg gtgggaactg
 60
 tgctgttgt ctccacaatt gcaatgaatg tcaatgtgtc ccaagcaaag ttactaaaaa
 120
 ataccacgag gtccttcagt tgagaccaa gaccggtgtc aggggattgc acaaatcact
 180
 caccgacgtg gccctggagc accatgagga gtgtgactgt gtgtgcagag ggagcacagg
 240
 aggatagccg catcaccacc a
 261

<210> 57
 <211> 279
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 57
 agaaaatcca gagggtgga tctgaacctt ctaacagagg aggtaagatt atacagctgc
 60
 acacctgta acttctcagt gtccataagg gaagaactaa agagaaccga taccattttc
 120
 tggccagggt gtctcctggt taaacgctgt ggtgggaact gtgctgttg tctccacaat
 180
 tgcaatgaat gtcaatgtgt cccaagcaaa gttactaaaa aataccacga ggtccttcag
 240
 ttgagaccaa agaccggtgt caggggattg cacaaatca
 279

<210> 58
 <211> 259
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 58
 agatgatata aaatattgtt gctctgacaa aaatacatgt atttcattct cgtatgggtgc
 60
 tagagttaga ttaatctgca ttttaaaaaa ctgaattgga atagaattgg taagttgcaa
 120

agactttttg aaaataatta aattatcata tottccattc ctgttattgg agatgaaaat
 180
 aaaaagcaac ttatgaaagt agacattcag atccagccat tactaaccta ttcctttttt
 240
 ggggaaatct gaggcctagc
 259

<210> 59
 <211> 284
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 59
 tttttaaaaa ggaactatgt tgctatgaat taaacttggtg tcgtgctgat aggacagact
 60
 ggattttttca tatttcttat taaaatttct gccatttaga agaagagAAC tacattcatg
 120
 gtttggaga gataaacctg aaaagaagag tggcctatct tcactttatc gataagtcag
 180
 tttatttggt tcattgtgta catttttata ttctcctttg acatataact gttggctttt
 240
 ctaatctggt aaatatatct atttttacca aaggtattta atat
 284

<210> 60
 <211> 262
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 60
 aggaaatcaa attaggataa gatttgtatc tgatgaatat tttccttctg aaccttctaa
 60
 cagaggaggt aagattatac agctgcacac ctcgtaactt ctcaagtgtcc ataagggaag
 120
 aactaaagag aaccgatacc attttctggc cagggtgtct cctgggttaa cgctgtggtg
 180
 ggaactgtgc ctgttgtctc ccacaattgc aatgaatgtc aatgtgtccc aagcaaagtt
 240
 actaaaaaat accacgaggt cc
 262

<210> 61
 <211> 289
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 61
 atttcatctt caggatttac agtgcattct gaaanaggag aaatcaaaca naattaggag
 60
 ttgtgcaaca gctcttttga gaggaggcct aaaggacagg agaaaaggtc ttcaatcgtg
 120
 gaaanaaaat taaatgttgt attaaataga tcaccagcta gtttcagagt taccatgtac
 180

gtattccact agctgggttc tgtatttcag ttctttcgat acggcttagg gtaatgtcag
 240
 tacaggaaaa aaactgtgca agtgagcacc tgattccgtt gccttgctt
 289

<210> 62
 <211> 251
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 62
 ttagcttggn aaatTTTTtct aaacacaatt gttatagcca gaggaacaaa gatgatataa
 60
 aatattgttg ctctgacaaa aatacatgta ttccattctc gtatgggtgct agagtttagat
 120
 taatctgcat tttaaaaaac tgaattggaa tagaattgggt aagttgcaaa gactTTTTtga
 180
 aaataattaa attatcatat cttccattcc tgttattgga gatgaaaata aaaagcaact
 240
 tatganagta g
 251

<210> 63
 <211> 252
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 63
 cttttttatg acaacttaga tcaactatTTt ttagcttggt aaatTTTTtct aaacacaatt
 60
 gttatagcca gaggaacaaa gatgatataa aatattgttg ctctgacaaa aatacatgta
 120
 ttccattctc gtatgggtgct agagtttagat taatctgcat tttaaaaaac tgaattggaa
 180
 tagaattgggt aagttgcaaa ggctTTTTtga aaataattaa attatcatat cttccattcc
 240
 tgttattggn gg
 252

<210> 64
 <211> 245
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 64
 caaagttact aaaaaatacc acgaggtcct tcagttgaga ccaaagaccg gtgtcagggg
 60
 attgcacaaa tcactcaccg acgtggccct ggagcaccat gaggagtgtg actgtgtgtg
 120
 cagaggggagc acaggaggat agccgcatca ccaccagcag ctcttgccca gagctgtgca
 180
 gtgcagtggc tgattctatt agagaacgta tgcgttatct ccatccttaa tctcagttgt
 240

ttgct
245

<210> 65
<211> 245
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 65
agataaacct gaaaagaaga gtggccttat cttcacttta tcgataagtc agtttatttg
60
tttcattgtg tacattttta tattctcctt ttgacattat aactggtggc ttttctaata
120
ttgttaaata tatctatttt taccaaaggt atttaatat cttttttatg acaacttaga
180
tcaactattt ttagcttggg aaatttttct aaacacaatt gttatagcca gaggaacaaa
240
gatga
245

<210> 66
<211> 243
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 66
ctggattttt catatttctt attaaaattt ctgccattta gaagaagaga actacattca
60
tggtttgga gagataaac tgaaaagaag agtggcctta tcttcacttt atcgataagt
120
cagtttattt gtttcattgt gtacattttt atattctcct ttgacatta taactgttgg
180
cttttctaata cttgttaaata atatctattt ttaccaaagg tatttaatat tcttttttat
240
gac
243

<210> 67
<211> 244
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 67
gctcatattc acatatgtaa accagaacat tctatgtact acaaacctgg tttttaaaaa
60
gganctatgt tgctatgaat taaacttgtg tcgtgctgat aggacagact ggatttttca
120
tatttcttat taaaatttct gccatttaga agaagagaac tacattcatg gtttggaaga
180
gataaacctg aaaagaagag tggccttatc ttcantttat cgataagtca gtttatttgg
240
ttca
244

<210> 68
 <211> 247
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 68
 angagttgcc cagagctgtg cagtgcagtg gctgattcta ttagagaacg tatgcgttat
 60
 ctccatcctt aatctcagtt gtttgnttca aggacctttc atcttcagga tttacagtgc
 120
 attctgaaag aggagacatc aaacagaatt aggagttgtg caacagctct tttgagagga
 180
 ggcctaaagg ncaggagaaa aggtcttcaa tcgtggaaag aaaattaaat gttgtattaa
 240
 atagatc
 247

<210> 69
 <211> 233
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 69
 aaagatgata taaaatattg ttgctctgac aaaaatacat gtatttcatt ctcgatatggt
 60
 gctagagtta gattaatctg cattttaaaa aactgaattg gaatagaatt ggtaagttgc
 120
 aaagactttt tgaaaataat taaattatca tatcttccat tcctgttatt ggagatgaaa
 180
 ataaaaagca acttatgaaa gtagacattc agatccagcc attactaacc tat
 233

<210> 70
 <211> 232
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 70
 aggaaatcaa attaggataa gatttgtatc tgatgaatat tttccttctg aaccttctaa
 60
 cagaggaggt aagattatac agctgcacac ctcgtaactt ctcagtgtcc ataagggaag
 120
 aactaaagag aaccgatacc attttctggc caggttgtct cctgggttaaa cgctgtggtg
 180
 ggaaactgtgc ctgttgtctc cacaattgca atgaatgtca atgtgtccca ag
 232

<210> 71
 <211> 253
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 71

gtgcattctg aaagaggaga catcaaacag aattaggagt tgtgcaacag ctcttttgag
60
aggaggccta aaggacagga gaaaagggtct tcaatcgtgg aaagaaaatt aaatgttgta
120
ttaaatagat caccagctag tttcagagtt accatgtacg tattccacta gctgggttct
180
gtatttcagt tctttcgata cggcttaggg taatgtcagt acaggaaaaa aactgtgcaa
240
gtgagcacct gat
253

<210> 72

<211> 233

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 72

tgtacatttt tatattctcc ttttgacatt ataactgttg gcttttcnaa tcttggttaa
60
tataatctatt tttaccaaag gtatttaata ttctttttta tgacaactta gatcaactat
120
ttttagcttg gtaaattttt ctaaacacaa ttgttatagc cagaggaaca aagatgatat
180
aaaatattgt tgctctgaca aaaatacatg tatttcattc tcgtatgggtg cta
233

<210> 73

<211> 250

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 73

cacaattggt atagccagag gaacaaagat gatataaaat attggtgctc tgncaaaaat
60
acatgtatct cattctcgta tgggtgctaga gttagattaa tctgcatttt aaaaaactga
120
attggaatag aattggtaag ttgcaaagac tttttgaaaa taattaaatt atcatatctt
180
ccattcctgt tattggagat gaaaataaaa agcaacttat gaaagtaaat tcagatccac
240
cattactaac
250

<210> 74

<211> 247

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 74

atctcattct cgtatggtgc tagagttaga ttaatctgca ttttaaaaaa ctgaattgga
60
atagaattgg taagttgcaa agactttttg aaaataatta aattatcata tcttccattc
120
ctgttattgg agatgaaaat aaaaagcaac ttatgaaagt agacattcag atccagccat
180
tactaaccta ttcctttttt ggggaaatct gagcctagct cagaaaaaca taaagcacct
240
tgaaaaa
247

<210> 75
<211> 265
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 75
tgcaacagct cttttgagag gaggcctaaa ggacaggaga aaaggtcttc aatcgtggaa
60
agaaaattaa atgttgattt aaatagatca ccagctagtt tcagagttac catgtacgta
120
ttccactagc tgggttctgt atttcagttc ttctgatacg gcttagggta atgtcagtac
180
aggaaaaaaa ctgtgcaagt gagcacctga ttccggtgcc ttgcttaacc ctaaagcncc
240
atgtcnnngg cnaaaancga aaaat
265

<210> 76
<211> 251
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 76
tttctaaaca caattgttat agccagagga acaaagatga tataaaatat tgttgctctg
60
acaaaaatac atgtatttca ttctcgtatg gtgctagagt tagattaatc tgcattttta
120
aaaactgaat tggnatagaa ttggtaagtt gcaaagnctt ttgaaaaata attaaattat
180
catatcttcc attcctgtta ttggaggatg gaaaataaaa agcaacttat ggaaagtagg
240
acattcagat c
251

<210> 77
<211> 291
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 77
ccttaatctc agttgtttgc ttcaaggacc tttcatcttc aggatttaca gtgcattctg
60

naagangaga catcaaacag aattaggngt tgtgcaaaag ctcttttgag aggaggccta
 120
 aaggacagga gaaaaggctt ncaatcgtgg aaagnaaatt aaatgttgta tnaaatngat
 180
 caccagctag tttcagagtt accatgtacg tattccacta gctgggncng tattcagtct
 240
 ttcggaacgg cttagggtta tgtcagtaca gganaaaaac tgtgcagtga g
 291

<210> 78

<211> 253

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 78

gtactacaaa cctggttttt aaaaaggaac tatgttgcta tgaattaaac ttgtgtccat
 60
 gctgatagga cagactggat tttncatatt tcttattaaa atttctgcca tttagaagaa
 120
 gagaactaca ttcattggtt ggnagagata aacctgaaaa gaagagtggc cttatcttca
 180
 ctttatcgat aagtcagttt atttgtttca tgtgtacatt tttatattct cctttgacat
 240
 ataacgtggc ttt
 253

<210> 79

<211> 204

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 79

ttatattctc cttttgacat tataactgtt ggcttttcta atcttggttaa atatatctat
 60
 ttttacaaa ggtatttaat attctttttt atgacaactt agatcaacta tttttagctt
 120
 ggtaaatttt tctaaacaca attgttatag ccagaggaac aaagatgata taaaatattg
 180
 ttgctctgan aaaaatacat gtat
 204

<210> 80

<211> 303

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 80

anactgtgca agtgagcacc tgattccgtt gccttgctta actctaaagc tccatgtcct
 60
 gggcctaaaa tcgtataaaa tctggannnn nnnnnnnnnn nnnngctcat attcacatat
 120
 gtaaaccaga acattctatg tactacaaac ctggttttta aaaaggaact atgttgctat
 180

gaattaaact tgtgtcgtgc tgataggaca gactggattt ttcataattc ttattaaaat
 240
 ttctgccatt agaagaagag aactacnttc anggtttgga agagataacc ctgaaaagan
 300
 ggg
 303

<210> 81
 <211> 228
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 81
 gctcatattc acatatgtaa accagaacat tctatgtact acaaacctgg tttttaaaaa
 60
 ggaactatatt gctatgaatt aaacttgtgt cgtgctgata ggacagactg gntttttcat
 120
 atttcttatt anaatttctg ccattagaag aagagaacta cattcatggt ttggaagaga
 180
 taaacctgaa aagaagagtg gcctatttca ctttatcgat aagtcagt
 228

<210> 82
 <211> 193
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 82
 gctcatattc acatatgtaa accagaacat tctatgtact acaaacctgg tttttaaaaa
 60
 ggaactatgt tgctatgaat taaacttgtg tcgtgctgat aggacagact ggatttttca
 120
 tatttcttat taaaatttct gccatttaga agaagagaac tacattcatg gtttggaaga
 180
 gataaacctg aaa
 193

<210> 83
 <211> 282
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 83
 aaaaaactga attggaatag aattggtaag ttgcaaagac tntttgaaaa taattaaatt
 60
 atcatatctt ccattcctgt tattggagat gaanataaaa agcaacttat gaaagtagac
 120
 attcagatcc agccattact aacctattcc ttttttgggg aaatctgagc ctagctcaga
 180
 aaaacataaa gcaccttgaa aaagacttgg cagcttcctg ataaagcgtg ctgtntgtca
 240
 gtaggaacac atcctattta ttgtgatgnt gtggtttatt at
 282

<210> 84
 <211> 279
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 84
 attaaataga tcaccagcta gtttcagagt taccatgtac gtattccact agctgggttc
 60
 tgtatttcag ttctttcgat acggcttagg gtaatgtcag tacaggaaaa aaactgtgca
 120
 agtgagcacc tgattccggt gccttggctt aactctaaag ctccatgtcc tgggcctaaa
 180
 atcgtataaa atctggattt tttntttttt ttttgcgcat attcacatat gtaaaccagn
 240
 acattctatg tacnacaaac ctgggttttta aaaaggaac
 279

<210> 85
 <211> 181
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 85
 ggctagtttc agagttacca tgtacgtatt ccactagctg ggttctgtat ttcagttctt
 60
 tcgatacggc ttagggtaat gtcagtagag gaaaaaaact gtgcaagtga gcacctgatt
 120
 ccgttgccct gcttaactct aaagctccat gtcctggggc taaaatcgta taaaatctgg
 180
 a
 181

<210> 86
 <211> 269
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 86
 tggtaagttg caaagacttt ttgaaaataa ttaaattatc atatcttcca ttctgttat
 60
 tggagatgaa aataaaaagc aacttatgaa agtagacatt cagatccagc cattactaac
 120
 ctattccttt tttggggaaa tctgagccta gtcagaaaa acataaagca ccttgaaaaa
 180
 gacttggcag cttcctgata aagcgtgctg tgctgtgcag tagggaacac atcctattta
 240
 ttgtgatgtt gtgggtttata tcctaaacc
 269

<210> 87
 <211> 184
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 87

aatagatcac cagctagttt cagagttacc atgtacgtat tccactagct gggntctgta
60
tttcagttcc ttccgatacg gcttagggta atgtcagtac aggaaaaaag ctgtgcaagt
120
gagcacctga ttccgttgcc ttgcttaact ctaaagctcc atgtcctggg cctaaaatcg
180
tata
184

<210> 88

<211> 164

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 88

agataaacct gaaaagaaga gtggccttat nttcacttta tcgataagtc agnttatttg
60
tttcattgtg tacatttnna tattctcctt ttgacattat aactgntggc ttttctaanc
120
ntgttaaata tatctatttt taccaaaggt atttaaatatt cttt
164

<210> 89

<211> 143

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 89

tatggtgcta gagttagatt aatctgcatt ttaaaaaact gaattggaat agaattggta
60
agttgcaaag actttttgaa aataattaaa ttatcatatc ttccattcct gttattggag
120
atgaaaataa aaagcaactt atg
143

<210> 90

<211> 164

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 90

ttttttnttt tgctcatatt cacatatgta aaccngaaca ttctatgtac nacaaacctg
60
gttttttaaaa aggaactatg ttgctatgaa ttaaacttgt gtcgtgctga taggacagac
120
tggttttttc anatttctta ntaanntttc tgccatttag aaga
164

<210> 91
 <211> 244
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 91
 gtacaggaaa aaaactgtgc aagtgagcac ctgattccgt tgccttgctt aactctaaag
 60
 ctccatgtcc tgggcctaaa atcgtataaa atctggannn nnnnnnnnnn nnnnngctca
 120
 tattcacata tgtaaaccag aacattctat gtactacaaa cctgggtttt aaaaaggaac
 180
 tatgttgcta tgaattaaac ttgtgtcgtg ctgataggac agactggatt tttcatattt
 240
 cttta
 244

<210> 92
 <211> 254
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 92
 gcaaagactt tttganaatn attaanntat catatcttcc attcctgtta tnggagatga
 60
 naataaaaag caacttatga aagtagacat tcagatccag ccattactaa cctattcctt
 120
 ttttggggaa atctgagcct agcncagaaa aacataaagc accttgaaaa agacttgcca
 180
 gcttctgat aaagcgtgct gtgctgtgca gtaggaacac atccnattta ttgtgntgtn
 240
 gnggttttat gatc
 254

<210> 93
 <211> 243
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 93
 tgtcagtaca ggaaaaaac tgtgcaagtg agcacctgat tccgttgctt tgcttaactc
 60
 taaagctcca tgtcctgggc ctaaaatcgt ataaaatctg gannnnnnnn nnnnnnnnnn
 120
 gctcatattc acatatgtaa accagaacat tctatgtact acaaacctgg tttttaaaaa
 180
 ggaactatgt tgctatgaat taaacttggt tcattgctgat aggacagact ggatttttca
 240
 tat
 243

<210> 94

<211> 244
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 94
 aattatcata tcttccattc ctgttattgg agatgnaaat aaaaagcaac ttatgaaagt
 60
 agacattcag atccagccat tactaaccta ttcctttttt ggggaaatct gagcctagct
 120
 cagaaaaaca taaagcacct tgaaaaagac tgtcagcttc ctgataaagc gtgctgtgct
 180
 gtgcagtagg aacacatcct atttattgtg atgttggtgtg tttattatct taaactcggt
 240
 ccat
 244

<210> 95
 <211> 152
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 95
 anagatgata taaaanattg ttgctctgac aannatacat gtatttcatt ctogtatggg
 60
 gctagagtta gattaatctg cnttttaaaa aactganttg gaatagantt ggtaagttgc
 120
 aaagncnttt gaaaatnatt aagttatcag at
 152

<210> 96
 <211> 292
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 96
 ttccattcct gttattggag atgaaaataa aaagcaactt atgaaagtag acattcagat
 60
 ccagccatta ctaacctatt ctttttttgg ggaaatctga gcttagctca gaaaaacata
 120
 aagcaccttg aaaaagactt ggcagcttcc tgataaagcg tgctgtgctg tgcagtagga
 180
 acacatccta tttattgtga tgttgtgggt ttattatcta aactctgttc catacacttg
 240
 tataaataca tggatatttt tatgtacaga agtatgtctc ttaaccagtt ca
 292

<210> 97
 <211> 308
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 97
cttccattcc tgttattgga gatgaaaata aaaagcaact tatganagta gacattcaga
60
tccagccatt actaacctat tccttttttg gggaaatctg agcctagctc agaaaaacat
120
aaagcacctt gaaaaagact tggcagcttc ctgataaagc gtgctgtgct gtgcagtagg
180
aacacatcct atttattgtg atgttgtggt tttattatct taaactctgt tccatacact
240
tgtataaata catggatatt tttatgtaca gaagtatgtc tcttaaccag ttcacttatt
300
gtacctgg
308